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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/614,141	07/13/2000	Lawrence David Bergman	YOR9-2000-0205-US1	4500

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EXAMINER

HOLMES, MICHAEL B

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/614,141

Applicant(s)

BERGMAN ET AL.

Examiner

Michael B. Holmes

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13, 15-18 is/are rejected.
- 7) ☒ Claim(s) 6 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____ |



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Examiner's Detailed Office Action

1. This office action is responsive to application **09/7614,141**, filed **July 13, 2000**.
2. **Claims 1-18** have been examined.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) **A patent may not be obtained** though the invention is not identically disclosed or **described** as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 7-13, 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Straforini et al.* (USPN 6,092,059) in view of *Powers et al.* (USPN 6,513,027) in further view of *Chakrabarti et al.* (USPN 6,389,436).

Regarding claims 1, 9, 17 & 18: *Straforini et al.* discloses a method, (C 6, L 39-42) an apparatus, (C 6, L 39-42) an article of manufacture, (C 6, L 43-46) a client-server arrangement, (C, 7 L 32-38) a computer processor(s) (C, 7, L 30-32) for use in resource discovery of establishing a semantic correspondence between a first set of labels (FIG. 3; item 54) and a second set of labels

(FIG. 3; item 58) the method comprising the steps of: obtaining one or more examples (FIG. 3; col. 8, line 24-30) and a classifier for the first set of labels (FIG. 3; item 54) and one or more examples (FIG. 3; col. 8, line 24-30) and a classifier for the second set of labels; (FIG. 3; item 58) generating label association rules based on the classification results for the first set of labels (FIG. 3; item 54) and the classification results for the second set of labels (FIG. 3; item 54), a label association rule having a semantic correspondence measure of confidence associated therewith. (C 1, L 45-54) *Straforini et al.* does not disclose using the classifier associated with the first set, trained on examples from the first set, to classify the second set thereby generating classification results for the second set of labels, and using the classifier associated with the second set, trained on examples from the second set, to classify the first set thereby generating classification results for the first set of labels. However, *Powers et al.* teaches using the classifier associated with the first set, trained on examples from the first set, to classify the second set thereby generating classification results for the second set of labels, and using the classifier associated with the second set, trained on examples from the second set, to classify the first set thereby generating classification results for the first set of labels. (FIG. 4; C 12, L 29-43)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the references because in many operations such as the manufacturing processes, it is desirable to inspect images of articles as the articles move through a sequence of operations to ascertain if the articles meet quality criteria or contain unwanted defects that require special processing. (*Straforini et al.* C 1, L 10-14) Moreover, inspection for minimum manufacturing quality criteria is typically preferably based on classification of aspects of articles such as, e.g., defects of the articles, as a function of, e.g., defect type and severity. In such a

defect classification technique, in the case of a web material, for example, defects of the material are identified in images of the material and measurements, i.e., features, of the defects are extracted from the images. The defects are then typically classified into categories, or classes, such as "scratch," "oil spot," "dirt," "roll mark," or other named defects, as well as subcategories, or subclasses, such as "small scratch," or "large scratch." (*Straforini et al.* C 1, L 28-39)

Regarding claims 2 & 10: *Straforini et al.* teaches further comprising the step of identifying one or more label association rules, from the label association generated rules, which have a measure of confidence not below a given threshold value. (C 5, L 08-23)

Regarding claims 3 & 11: *Powers et al.* teaches wherein the one or more identified label association rules are used in a resource discovery operation associated with a requested search. (C 1, L 34-37)

Regarding claim 4 & 12: *Chakrabarti et al.* teaches wherein the resource discovery operation is distributed. (FIG. 1) i.e., old and well known.

Regarding claims 5 & 13: *Straforini et al.* teaches wherein the semantic correspondence measure of confidence for a label from the first set with respect to a label of the second set is a sum of respective confidence measures associated with classification of the one or more examples associated with the sets of labels. (C 17, L 42 to C 18, L 16)

Regarding claims 7 & 15: *Chakrabarti et al.* teaches, wherein classification of labels is super-

Art Unit: 2121

vised. (C 20, L 40-51) It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the references because searching through vast amounts of information arranged in a free-form format can be substantially more difficult and time consuming than searching through information arranged in a pre-defined order, such as by topic, date, category, or the like. However, due to the nature of certain on-line systems, such as the internet, much of the accessible information is placed on-line in the form of free-format text.

Regarding claims 8 & 16: *Straforini et al.* teaches wherein supervised classification is performed in accordance with one of a Bayes classification algorithm, a Perceptron classification algorithm, a k-nearest-neighbor classification algorithm, a linear discriminant function classification algorithm, and a neural networks classification algorithm. (C 17, L 23-35)

Claim Objection

5. Claims 6 & 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and (listed of form **PTO-892**) not relied upon is considered pertinent to applicant's disclosure as follows. Applicant or applicant's representative is respectfully reminded that in process of patent prosecution i.e., amending of claims in response to a rejection of claims set forth by the Examiner per Title 35 U.S.C. The patentable novelty must be

Art Unit: 2121

clearly shown in view of the state of the art disclosed by the references cited and any objections made. Moreover, applicant or applicant's representative must clearly show how the amendments avoid or overcome such references and objections. *See 37 CFR § 1.111(c).*

Correspondence Information

7. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Michael B. Holmes** who may be reached via telephone at **(703) 308-6280**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding After Final issues, please send it to **(703) 746-7238**. If you need to send an Official facsimile transmission, please send it to **(703) 746-7239**. If you would like to send a Non-Official (draft) facsimile transmission the fax is **(703) 746-7240**. If any attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, **Anthony Knight**, may be reached at **(703) 308-3179**.

Any response to this office action should be mailed too:

Director of Patents and Trademarks Washington, D.C. 20231. Hand-delivered responses should be delivered to the Receptionist, located on the fourth floor of **Crystal Park II, 2121 Crystal Drive Arlington, Virginia**.

Michael B. Holmes


Anthony Knight
Supervisory Patent Examiner
Group 3600

Application/Control Number: 09/614,141

Page 7

Art Unit: 2121

Patent Examiner
Artificial Intelligence
Art Unit 2121
United States Department of Commerce
Patent & Trademark Office